

FIG. 1

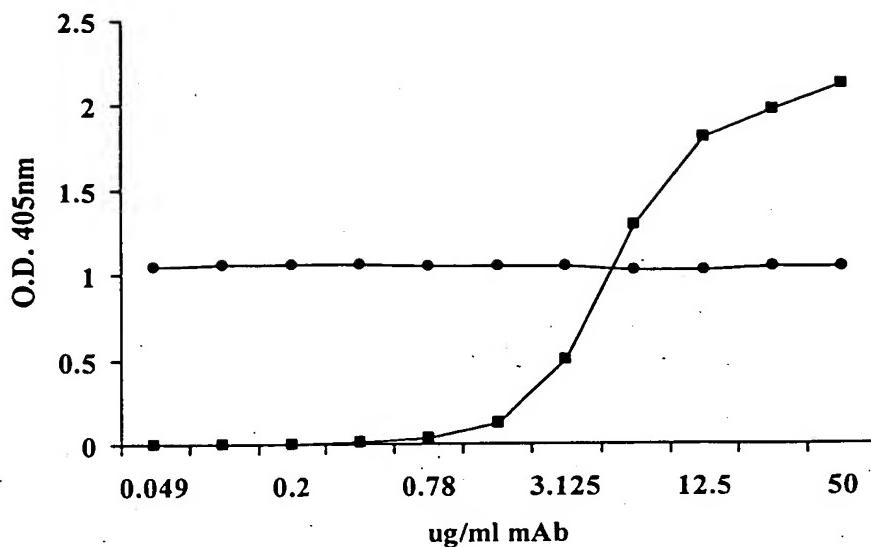


FIG. 2A

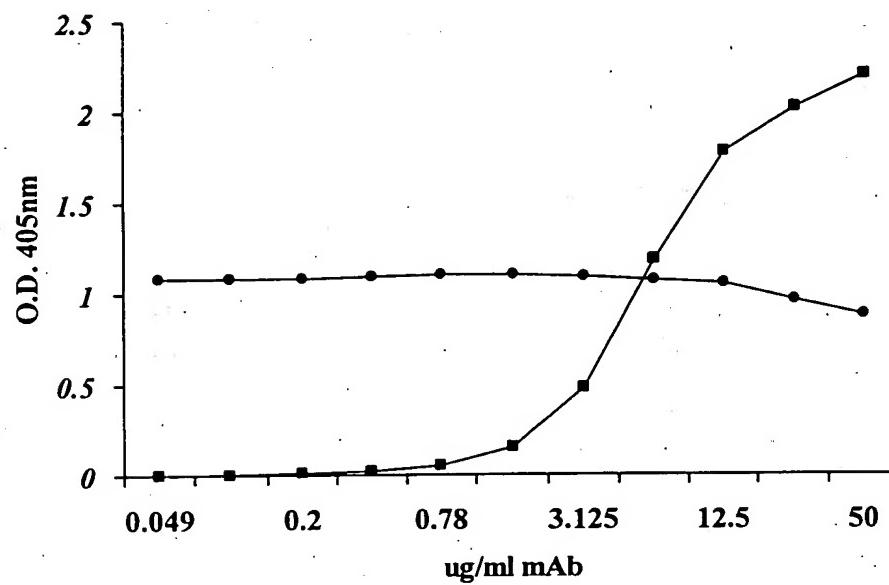


FIG. 2B

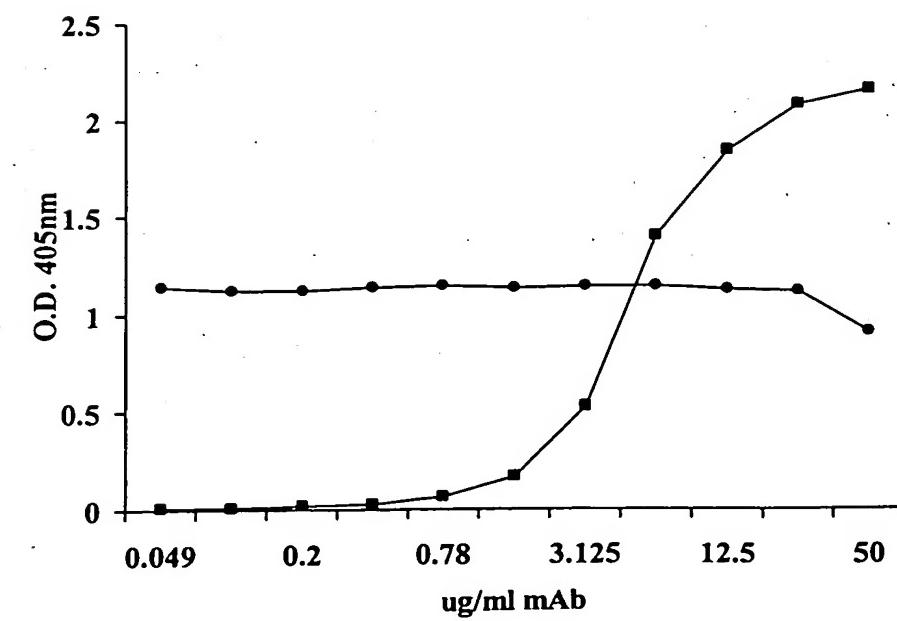


FIG. 2C

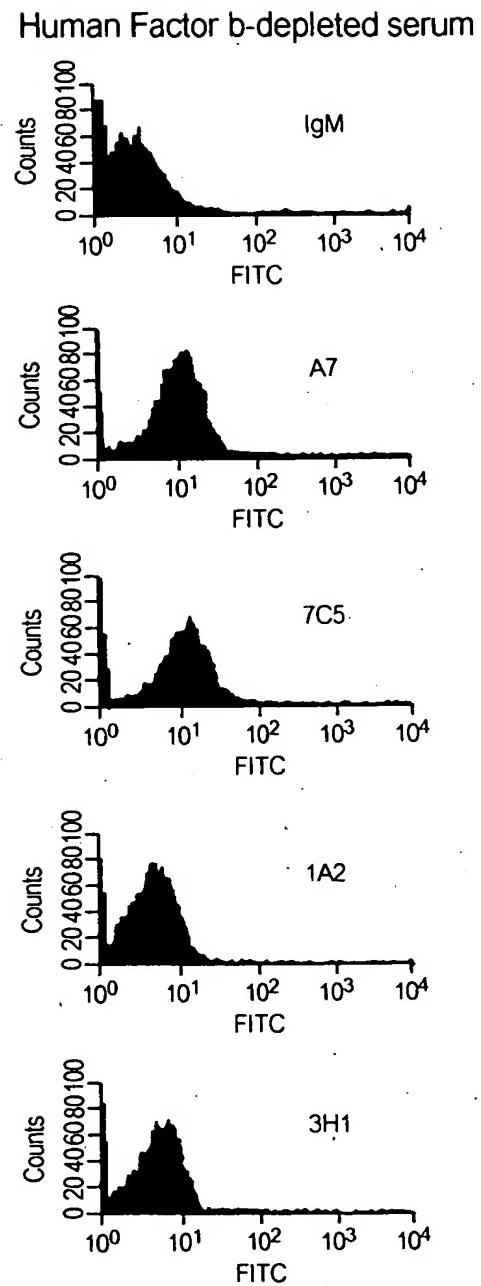
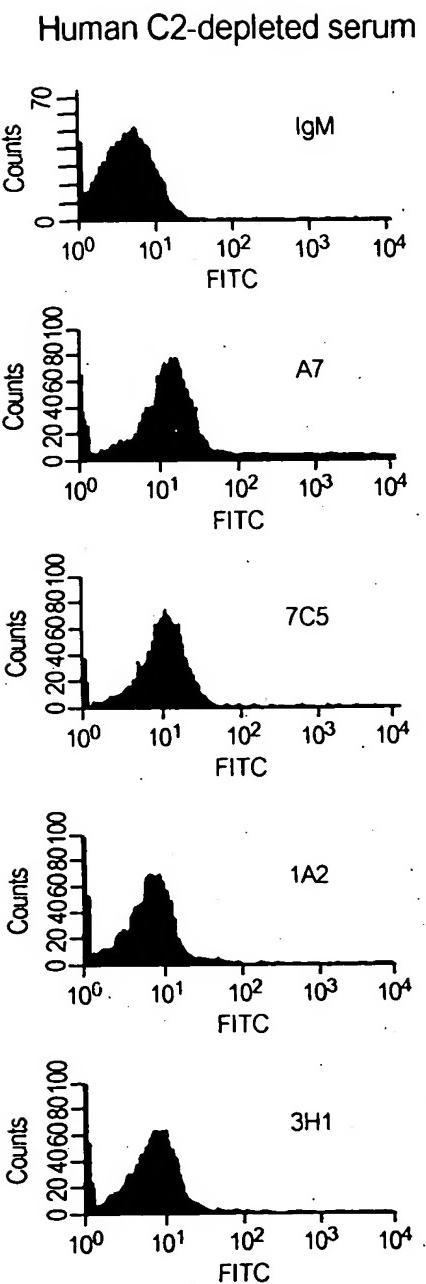
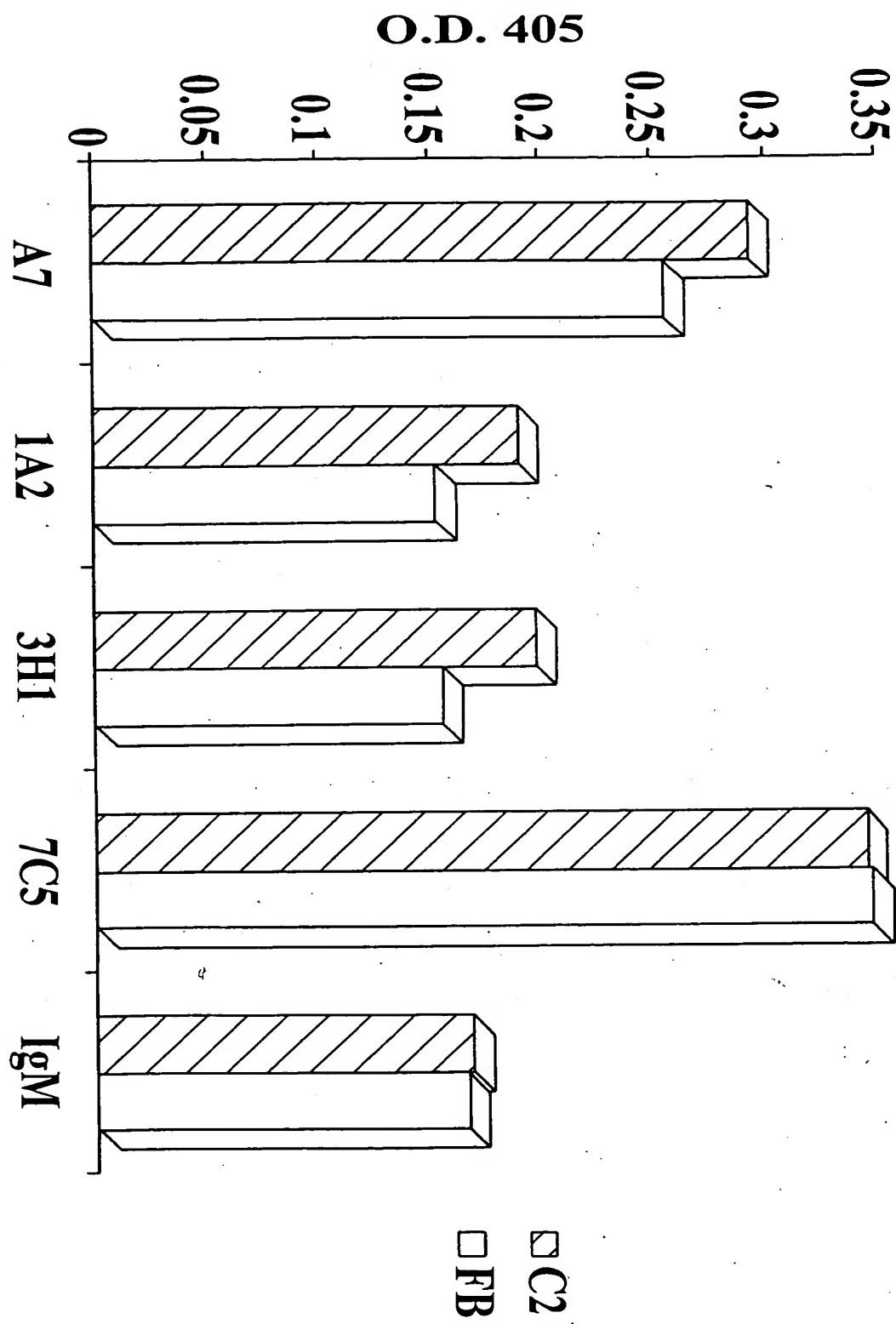


FIG. 3A

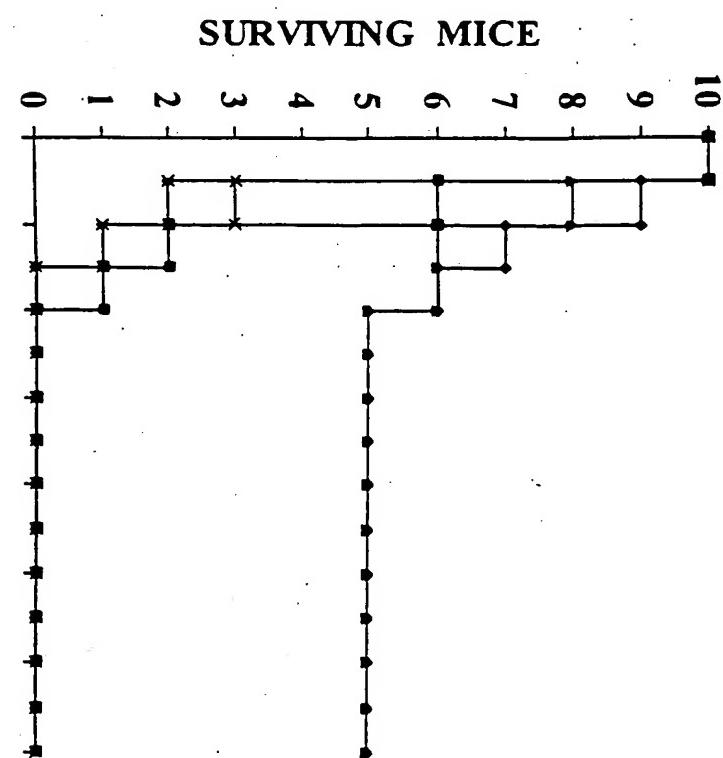
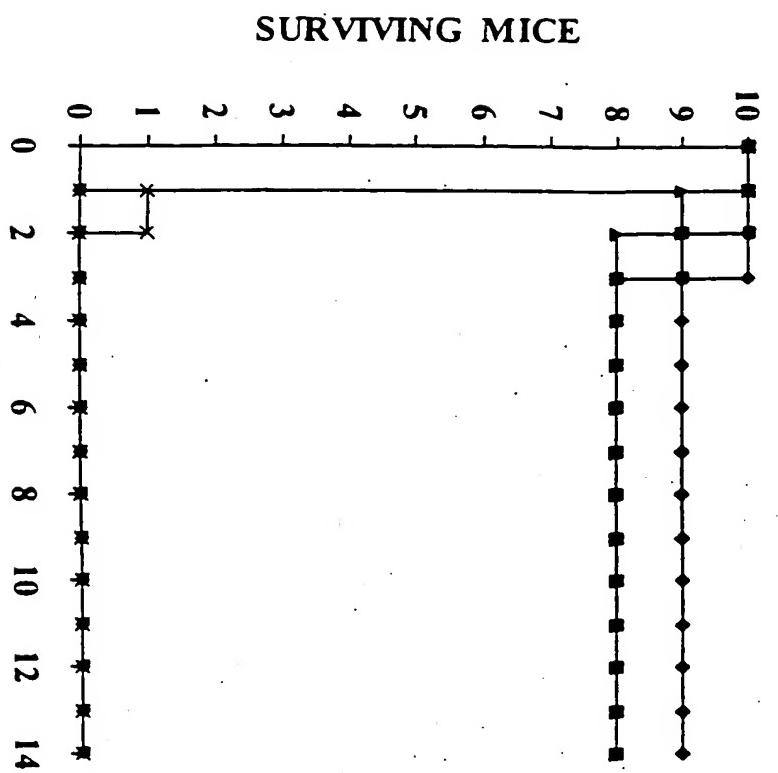
FIG. 3B

FIG. 4



Balb/c 10 ug

Balb/c 1 ug



DAY'S AFTER IP INFECTION

DAY'S AFTER IP INFECTION

—♦— A7 —●— 1A2 —▲— 7C5 —●— 3H1 —*— IgM —*— PBS

FIG. 5

7C5

1F10 Heavy Chain (SEQ ID NO: 1)

**5'GAGTTGGGCTGAGCTGGCTTTCTTGTGGCTATTTAAAAGGTGTCCAG
TGTGAGGTGCAGCTGTTGGAGTCTGGGGAGGCTGGTACAGCCTGGGGGT
CCCTGAGACTCTCCTGTGCAGCCTCTGGATTCACCTTAGCAGCTATGCCATG
AGCTGGGTCCGCCAGGCTCCAGGAAGGGCTGGAGTGGGTCTCAGCTATT
GTGGTAGTGGTGGTAGCACATACTACGCAGACTCCGTGAAGGGCCGTTCAC
CATCTCCAGAGACAATTCCAAGAACACGCTGTATCTGCAAATGAACAGCCTG
AGAGCCGAGGACACGGCCGTATATTACTGTGCGAAAGCCCCCTCTAAGTGGG
GATCGTTGACTACTGGGCCAGGAACCCTGGTCACCGTCTCCTCAGGGAG
TGCATCCGCCAACCCCTTCCCCCTCGTCTCCTGTGAGAATTCC3'**

1F10 Light Chain (SEQ ID NO: 2)

**5'GATATTGAGCTCACGCAGTCTCCACTCTCCCTGCCGTACCCCTGGACA
GCCGGCCTCCATCTCCTGCAGGTCTAGTCAGCAGAGGCCAGGCCAATCTCCAAGGCC
TAATTATAAGGTTCTAACTGGACTCTGGGTCCCAGACAGATTCAAGCGGC
AGTGGTCAGGCACTGATTACACTGAAATCAGCAGGGTGGAGGCTGAGG
ATGTTGGGTTTATTACTGCATGCAAGGTACACACTGGCCTCGGACGTTGGC
CAAGGGACCAAGGTGGAAATCAAACGAACACTGTGGCTGCACCATCTGTCTCA
TCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAACTGCCTCTGTTGTGC
CTGCTGAATAACTCTATCCCAGAGAGGCCAAAGTACAGTGGAAAGGTGGATA
ACGCCCTCCAATCGGTAACCTCCAGGAGAGTGTACAGAGCAGGACAGCA
AGGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGACT
ACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCTGAGCTC
GCCGTACAAAGAGCTTCAACAGG3'**

3H1 Heavy Chain (SEQ ID NO: 3)

**5'GAGTTGGGCTGAGCTGGTTCTCGTTGCTCTTAAAGAGGTGTCCAG
TGTCAAGGTGCAACTGGTGGAGTCTGGGGAGGCGTGGTCCAGCCTGGAGGT
CCCTGAGACTCTCCTGTGCAGCGTCTGGATTCACCTCAGTAGCTATGGCATG
CACTGGTCCGCCAGGCTCCAGGCAAGGGCTGGAGTGGGTGGCAGTTATAT
GGTATGATGGAAGTAATAAAACTATGCAAGACTCCGTGAAGGGCCGATTAC
CATCTCCAGAGACAATTCCAAGAACACGCTGTATCTGCAAATGAACAGCCTG
AGAGCCGAGGACACGGCTGTGTATTACTGTGCGAGAGATCGGGAGTGGCTGA
GGTACTACTACTACGGTATGGACGCTGGGGCCAAGGGACCACGGTCACCGT
CTCCTCAGGGAGTGCATCCGCCAACCCCTTCCCCCTCGTCTCCTGTGAG
AATTCC3'**

FIG. 6A

3H1 Light Chain (SEQ ID NO: 4)

5'GACATTGAGCTACGCAGTCTCCATCTCCGTGCTGCATCTGTAGGAGAC
AGAGTCACCACACTGTCGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCT
GGTATCAGCAGAAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGTTGCATC
CCGTTGCAAAGTGGGTCCCATCAAGGTTAGCGGCAGTGGATCTGGGACA
GATTCACTCTCACCATCAGCAGCCTGCAGCCTGAAGAGATTGCAACTACTA
TTGTCACACAGGCTAACAGTTCCCTCGGACGTTGGCCAAGGGACCAAGGTG
GAAATCAAACGAACGTGGCTGCACCATCTGTCTTCATCTCCGCCATCTGA
TGAGCAGTTGAAATCTGGAAC TG C CT GT GT G C CT G C T G A A T A A C T T C T
ATCCCAGAGAGGCCAAAGTACAGTGGAAAGGTGGATAACGCCCTCCAATCGG
GTAACCTCCCAGGAGAGTGTACAGAGCAGGACAGCAAGGACAGCACCTACA
GCCTCAGCAGCACCCCTGACGCTGAGCAAAGCAGACTACGAGAAACACAAAG
TCTACGCCTGCGAACGTACCCATCAGGGCCTGAGCTGCCGTACAAAGAG
CTTCAACAGG3'

1A2 Heavy Chain (SEQ ID NO: 5)

5'GAATTTGGGCTGAGCTGGATTTCTTGCTGCTATTTAAAAGGTGTCCAG
TGTGAGGTGCAGCTGGTGGAGTCTGGGGAGGCTGGTAAAGCCTGGGGGT
CCCTTAGACTCTCCTGTGCAGCCTCTGGATTCACTTCAGTAACGCCCTGGATG
AGCTGGGTCCGCCAGGCTCCAGGGAAAGGGGCTGGAGTGGGTTGGCCGTATT
AAAGCAAAACTGATGGTGGGACAACAGACTACGCTGCACCCGTGAAAGGCA
GATTCAACCATCTCAAGAGATGATTCAAAAAACACGCTGTATCTGCAAATGAA
CAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACCAAGCTGGAAC
TACAGGTACTACTTGACTACTGGGGCCAGGGAACCCCTGGTACCGTCTCCTC
AGGGAGTGCATCCGCCCCAACCTTTCCCTCGTCTCCTGTGAGAATTCC
3'

1A2 Light Chain (SEQ ID NO: 6)

5'GACATTGAGCTACGCAGTCTCCAGACTTCAGTCTGACTCCAAAGGA
GAAAGTCACCACCATCACCTGCCGGCCAGTCAGAGCATTGGTAGTAGCTTACAC
TGGTACCAGCAGAAACCAGATCAGTCTCCAAAGCTCCTCATCAAGTATGCTT
CCCAGTCCTCTCAGGGTCCCTCGAGGTTAGTGGCAGTGGATCTGGGAC
AGATTCACCCTCACCATCAATAGCCTGGAAGCTGAAGATGCTGCAACGTAT
TACTGTCATCAGAGTAGTAGTTACCTCGGACGTTGGCCAAGGGACCAAGG
TGGAAATCAAACGAACTGTGGCTGCACCATCTGCTTCATCTTCCGCCATCT
GATGAGCAGTTGAAATCTGGAAC TG C CT GT GT G C CT G C T G A A T A A C T T
CTATCCCAGAGAGGCCAAAGTACAGTGGAAAGGTGGATAACGCCCTCCAATCG
GGTAACCTCCCAGGAGAGTGTACAGAGCAGGACAGCAAGGACAGCACCTAC
AGCCTCAGCAGCACCCCTGACGCTGAGCAAAGCAGACTACGAGAAACACAAAG
GTCTACGCCTGCGAACGTACCCATCAGGGCCTGAGCTGCCGTACAAAGAG
GCTTCAACAGG3'

FIG. 6B

A7 Heavy Chain (SEQ ID NO: 7)

5'GAGTTGGGCTGAGCTGGATTCCTGCTGCTATTTAAAAGGTGTCCAG
TGTGAGGTGCAGCTGGTGGAGTCTGGGGAGGCTGGTAAAGCCTGGGGGT
CCCTAGACTCTCCTGTGCAGCCTCTGGATTCACTTCAGTAACGCCCTGGATG
AGCTGGGTCCGCCAGGCTCAGGGAAAGGGCTGGAGTGGGTGGCCGTATTA
AAAGCAAAACTGATGGTGGGACAACAGACTACGCTGCACCCGTGAAAGGCA
GATTACCATCTCAAGAGATGATTCAAAAAACACGCTGTATCTGCAAATGAA
CAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACGAAACATAGTGGG
AGCTACTACGGATACTCCAGCACTGGGCCAGGGCACCCCTGGTCACCGTCT
CCTCAGGGAGTGCATCCGCCCCAACCCCTTCCCCCTCGTCTCCTGTGAGAA
TTCC3'

7 Light Chain (SEQ ID NO: 8)

5'GATATTGAGCTCACTCAGTCTCCACTCTCCCTGCCGTACCCCTGGAGA
GCCGGCCTCCATCTCCTGCAGGTCTAGTCAGAGCCTCCTGCATAGTAATGGAT
ACAACATTTGGATTGGTACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCT
GATCTATTGGGTTCTAATCGGGCCTCCGGGTCCTGACAGGTTAGTGGCA
GTGGATCAGGCACAGATTACACTGAAAATCAGCAGAGTGGAGGCTGAGGA
TGTTGGGTTATTACTGCATGCAAGCTCTACAAACCTCCTCGGACGTTCGGCC
AAGGGACCAAGGTGGAAATCAAACGAACTGTGGCTGCACCCTGTCTTCAT
CTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAACTGCCCTGTGTTGCG
TGCTGAATAACTCTATCCCAGAGAGGGCAAAGTACAGTGGAAANGTGGATAA
CGCCCTCCAATCGGTAACTCCCANGAGAGTGTACAGAGCANGACAGCAA
AGACAGCACCTACAGCCTCAGCAGCACCCTGACGCTGAGCAAAGCAGACTAC
GAGAAACACAAAGTCTACGCCCTGCGAAGTCACCCATCAAGGCCTGAGCTCGC
CCGTCACAAAGAGCTTCAACAGGA3'

FIG. 6C